

THE BIOLOGIST

LEFAX

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NO. 2

HO!! EASTWARD HO!!

Philadelphia Convention, December 27, 1926

Turkey and plum puddings forgotten amid the excitement of a convention throng. Phi Sigma invites you to attend the third annual meeting of her entire society. Be there with a cheerful smile and more power to you. Come, Phi Sig's, and take your place as the roll is called.

Phi Sigma headquarters, Hotel Bartram, Thirty-third and Woodland Ave. Convention will be held in room 111 College Hall, Woodland Ave., between Thirty-fourth and Thirty-sixth Street.

Let your conscience be your guide.

Delegates Must Obtain Railroad Certificates

As usual every delegate attending the convention must secure a certificate (not a receipt) when purchasing a ticket from the starting point for Philadelphia. During the convention the certificate and the railroad ticket should be presented in person before an authorized railroad official for validation before the return trip is made.

Upon the arrival, registration should be made at the convention headquarters and the hotel wherein Phi Sigma members are stopping. Don't forget to sign up at the Phi Sigma registration desk.

Delegates should not fail to have their convention reports written and ready to file with the National Assistant Secretary.

Petitions

A petition to Phi Sigma comes from Phi Sigma Beta, a local biological club, State Agricultural College, Bozeman, Montana. The National Council has passed favorably upon it and it will be voted upon next by the chapters. If this club receives an affirmative vote from fifteen of the chapters it will be taken into the national organization as Chi Chapter of Phi Sigma.

Word has been received to the effect that Doctor R. P. Hall (Mu) Department of Biology at New York University is looking toward Phi Sigma with the hope that the society may at some future date enter upon that city campus. The nature of this request is being investigated by one of the National Officers.

On the Trail

(Jingle Bells)

Phi Sigma, Phi Sigma, Phi Sigma gets the gang,
Phi Sigma has the wildest bunch that ever laughed and sang.
Be the moon ashining bright or be the storm a gale,
Oh, what fun we'll have tonight
Phi Sigma's on the trail.

—Pi, May '26

PHI SIGMA SOCIETY

AN ORGANIZATION DEVOTED TO THE PROMOTION OF
INTEREST IN RESEARCH IN THE BIOLOGICAL SCIENCES
founded OHIO STATE UNIVERSITY, March 17, 1915.

National Council

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FORMER PRESIDENT SETCHELL ON WORLD TOUR

Doctor and Mrs. William Albert Setchell, in the company of three others, departed from Berkeley on May 5 for a botanical and geological survey of the islands in the central Pacific Ocean. This trip is being made in cooperation with the Bishop Field Museum and with the purpose of shedding some light on the sequence of events in the central Pacific Ocean during geologic time.

The results from their investigations on and in the vicinity of the Tonga Islands were reported briefly by Doctor Setchell in the November 5th issue of Science. Particular attention has been paid to collecting corals, mollusks, foraminifera, and nullipores, both living and fossil. The distribution of land plants was also determined both from the ecological and floristic standpoints.

Doctor and Mrs. Setchell are now attending the Pan-Pacific Congress at Tokyo, Japan, where Doctor Setchell is representing the University of California.

After a stay in Java, at the Buit-

enzorg Botanical Garden, and some trips to characteristic vegetational areas, they proceed to Australia, spending some time getting acquainted with the vegetation of the Blue Mountains of New South Wales. Then they will traverse to New Zealand from north to south, making a longer stay in the southern islands to become acquainted at first hand with the subantarctic vegetation of New Zealand.

From New Zealand they proceed to South Africa and shall spend six weeks in looking over marine and land vegetation, particularly to determine certain temperature relations of the algae and to get a glimpse of the characteristic vegetational areas of Africa south of Victoria Falls and the Zambesi River. From Beira, on the east coast, they will visit Egypt and rapidly cross Europe to London. It will likely be the middle of August, 1927, before they will sail for New York, and return to Berkeley, completing what will have been fifteen months of continuous travel and exploration.

CHAPTER REPORTS

Eta Chapter

Eta Chapter held their fall initiation banquet on November 9, at Forest Inn. Dr. A. B. Plowman was the speaker of the evening. The initiates were: Dr. H. Hottenstein, faculty member; Arthur Dobkin, Louis Sheinin, Paul Zimmerman, Mrs. G. Blake, Miss R. Koons, and Miss E. Barber.

Eta Chapter aims to maintain interest in its meetings by varying the type of program from time to time. In the beginning of the semester, ten minute talks were given by each member at each meeting, and these were followed by general discussion of the subject. This gives each member an opportunity to participate.

Later in the semester when everyone has had ample time to work out his special research problem, the meetings will be devoted to the reading of one or more of these research problems. These readings will be accompanied by demonstration in the laboratory, whenever possible, and followed by general discussion.

Our banquet-initiations, held every semester, are events which bring together faculty, alumni, active, and new members for a pleasant and profitable evening.

Alumni Personals

Carl Krill is a student of the Medical School of the University of Pennsylvania.

Bertsyl Keeler is principal of a grade school in Wadsworth, Ohio.

Byron Larrabee is attending Law School at Western Reserve, Cleveland.

Kathryn Teeple is a technician in the City Hospital laboratory, Akron, Ohio.

Esther Stepfield is at Western Reserve as an assistant to Professor Karsner.

—Thelma Litsinger.

Mu Chapter

Members of Mu chapter now on the University campus number about one-hundred and twenty. These include forty-seven faculty members, sixty-five graduates, six undergraduates and three who are engaged as assistants in research in a biological department.

Of all the departments, Zoology is the best represented in membership, having twenty-eight members; Botany is next in line, with fifteen members; Entomology with twelve; Anatomy, and Horticulture each with eleven; followed in order by Plant Nutrition, Plant Pathology, Bacteriology, Physiology, Genetics, Paleontology, Biochemistry, Public Health, and Psychology.

The new members included in the winter initiation number thirty-five, two of whom, Mr. R. A. Bolt of Bacteriology, and Mr. E. L. Furlong of Paleontology, are faculty members. The others consist of fourteen undergraduates and nineteen graduates. It is the policy of Mu chapter to take notice of all undergraduates who show an interest in research work and include them in the society before graduation. Students are thus given an added incentive to go on into graduate research work; furthermore the presence of this younger group is stimulating to the society.

The policy of Mu chapter this year has been to have departmental meetings, each department being given the opportunity of presenting to the society some idea of the research carried on in its particular field. As yet only two departments have been represented, Physiology and Paleontology. However, the plan will be continued during the next semester.

Three other meetings were held by Mu chapter during the fall semester: (1) A dinner meeting on September 2, at which time Prof. E. O. Essig of the Entomology department addressed the thirty-one members present upon the ethics

of student endeavor, with reference, particularly, to endeavor in biological fields. This was a most fitting subject for the opening meeting of the semester, giving, as it did, a stimulus to everyone present to do better work; (2) on October 7, a public meeting under the auspices of Mu chapter of Phi Sigma, attended by about seven hundred and fifty persons, on which occasion Dr. David Starr Jordan, in his usual interesting style, talked on "Evolution from a Naturalist's Standpoint"; (3) the initiation banquet, followed by the address of Dean E. D. Merrill of the College of Agriculture.

News Items

Dr. Chester Stock, Assistant Professor of Paleontology, has left the University of California to become Professor of Paleontology at the California Institute of Technology, thus opening the biological field at this institution. Dr. Stock, while with the University of California, completed a great deal of paleontological research, and still has several unfinished problems on hand. These deal with the Rancho La Brea and McKittrick Pleistocene asphalt deposits. He also is associated with Dr. John C. Merriam, Dr. Ralph Chaney and Dr. Buwalda in studying the stratigraphy and faunal zones of the John Day fossil beds of Oregon.

Dr. Ralph Chaney, acting in the capacity of Paleobotanist, was one of the members of the Central Asiatic Expedition of 1925. Since his return he has been engaged in a study of the Tertiary flora of Mongolia and Manchuria.

Dr. E. C. Van Dyke, of the department of Entomology, spent his last summer's vacation in the Rocky mountains studying insect distribution.

Dr. H. C. Bryant, Economic Ornithologist of the Museum of Vertebrate Zoology, aside from his research problems, is engaged, during the summer months, in educational work in the Yosemite National Park. Nature guiding in the Park is now a well established institution, but Dr. Bryant has gone a step farther and has started a School of Field Natural History, de-

signed to give first hand acquaintance with living things in the open, the class each summer to include not more than twenty students.

Dr. H. M. Hall, Honorary Curator of the Herbarium, and Dr. T. H. Goodspeed, Associate Professor of Botany, were present at the International Botanical Congress which convened at Ithaca, New York, in August of this year.

Dr. W. A. Setchell head of the Botany department is on sabbatical leave, and is making a journey around the world. He spent the summer in the South Sea islands, studying the flora of that region. A report of this expedition, written by Dr. Setchell, may be found in *Science* for November 5, 1926. Dr. Setchell is now in Japan, where he attended the Pan-Pacific Scientific Congress.

—Hildegard Howard

Symbionts of Duke University Tau Chapter

True symbiosis is the living together of two organisms or animals on a partnership basis. There must be a fifty fifty relationship, and each must receive equal benefit from its partner. The members of Phi Sigma, of Duke University, do not pursue scientific knowledge for selfish satisfaction, although there is a virtue in attaining satisfaction through honest effort. This organization feels that its greatest purpose is to stimulate scientific research among its members so that new truths may be arrived at, and that its members may in some small way share these truths with its fellow chapters of Phi Sigma.

Phi Sigma at Duke is one of the most vigorous and active organizations on the college campus. High standards are maintained and, as this chapter increases in years, its strength will vary directly with its age.

In choosing new members to this organization there are many qualities which are required of prospective members, ability, application, scholastic achievements, social standing; but the one word which probably includes them all, and is

the highest requisite that Phi Sigma demands, is "Devotion",—devotion to Science. No member is ever admitted who does not proclaim through intensive study a love for Science.

Phi Sigma in return, strives to give to its members knowledge which will make their love for biology deeper, and will increase their understanding toward all nature. Phi Sigma affords constructive criticism to its members through the suggestions and modifications of ideas which are good, but which need guidance and but still are in the making.

Dr. Bert Cunningham, head of the Science department of Duke University, has felt for some time the need for stimulation of research work among the students. As a result, there has been offered this year in the biology department experimental courses for seniors and graduate students, in which problems are worked out or at least started in each school year.

There are at present thirteen members of Tau Chapter. Dr. Bert Cunningham, Dr. H. L. Blomquist, Mr. N. F. Wilkerson, Dr. F. G. Hall are the Faculty members, and the active members are: N. B. Buffaloe, S. S. Jenkins, Voris A. Matheny, L. S. Thompson, F. J. Holl, Dean W. Rumbold, W. R. Ellerson, Nola Jane Gentry, Dorothy Wilson.

The officers are: L. S. Thompson, president; W. R. Ellerson, vice president; Voris A. Matheny, secretary, N. B. Buffaloe, treasurer.

Every member of Phi Sigma including faculty, graduate students and seniors are engaged in active research. The titles of the research under way will be contained in the next number of THE BIOLOGIST.

—Nola Jane Gentry.

Sigma Chapter

This, the third year of our existence, is marked by our entrance into Phi Sigma. Our club was founded in the latter part of the 1923-4 school year by a group of students drawn together by a common interest in Biology. They

named their organization Beta Omega. Of this group, four were still in the University when we were installed as Sigma Chapter of Phi Sigma.

When we were but a local Biology Club we held regular monthly meetings, following the rules of Phi Sigma as much as possible. We arranged for an interesting, timely, not-too-technical, yet not-too-popular paper to be presented at each meeting. Most of these meetings were open to all who were interested enough to come. Part of our papers were by members of the faculty, and part by students. In theory, we admitted students from any college whose interest in biology was sufficiently aroused. In practice these students all came from the Arts and Science College and the College of Agriculture. Most of them were students working for a B. S. degree with a major in Biology.

We are beautifully situated here, in Florida, for fundamental research in many lines. We are not hampered by a long and cold winter during which our outdoor activities must cease; and we have at our door a work of nature in which she has been lavish with species and families and phylla. We have the sea and the land, the tropic and the temperate forms of life. And furthermore, we have the will to use this raw material.

The Biology Department owns a bit of land in an ideal position for study. It is the plan of the club to study this place in a systematic fashion. Those of the club who have a particular interest in some taxonomic group will take that group; collect it; study its ecology and classify the species which is found there. Those groups in which we do not have a specialist will be collected by all and sent to some one working on them for determination.

Rho Chapter News

Rho chapter held their spring initiation and banquet at the Green Tea Pot, May 10. Dr. C. L. Metcalf, Head of the Dept. of Entomology, gave an illustrated lecture on "The

Day's Work Among the Insects". Those elected to faculty membership were: John J. Pieper, Assistant Professor and Assistant Chief in Crop Production; Dr. Stella Hague, Instructor in Botany; and Dr. W. V. Balduf, Assistant Professor of Entomology. Twelve were elected to active membership, viz.: O. H. Sears, Assistant Professor of Soil Biology; F. M. Clark, Assistant in Soil Biology; J. C. Frankenfeld, graduate student in Entomology; Mathilde Krenz, Assistant in Botany; F. A. Schrepfer, graduate student in Botany; Edwin Y. Monsma, Assistant in Zoology; John H. Swanson, Assistant in Zoology; Alma W. Rutledge, graduate student in Entomology; Ben Hill, Assistant in Zoology; John R. Savage, Assistant in Zoology; Walter H. Michaels, Assistant in Botany; and Lyle Bamber, Assistant in Zoology.

At the last regular meeting of the year Mr. Morris Steggerda, who is now in the West Indies doing eugenical work, talked on the effect of ovarian stimulation on egg production in the domestic fowl and also about the relation of domestic fowls to climate.

A few days before Commencement members of Rho chapter gathered in Crystal Lake park for a steak fry and a very enjoyable social evening. The opinion was expressed by all the members that this was one of the most enjoyable meetings of the year.

Alumni Personals

M. R. Smith is at Mississippi A. and M. teaching part time and working with the state on the control of the Argentine ant. L. A. Black is assisting on the Illinois Health Survey and is living at Springfield, Illinois. Morris Steggerda is in Jamaica, West Indies, doing eugenical work for Cold Spring Harbor. F. A. Schrepfer is teaching landscape architecture at the University of Pennsylvania, Philadelphia. Maurie Bailey is teaching in a high school at Wabash, Indiana. Laura Schroeder is an instructor in botany at Beloit College, Beloit, Wisconsin. Winona Welch is head of the Department of Biology at Danville Normal College, Danville, Indiana. O. K. Stark

is Professor of Botany in the State Normal School at Natchatoches, La. He was married during the summer to Miss Mary Milligan, who is also an alumnus of Rho chapter.

The New Year 1926-27

Rho chapter began the new year rather auspiciously. Most of the old members are again in Urbana pursuing their graduate work at the University of Illinois, and 21 new members have been elected for the autumn initiation. The program committee has thus far provided for an excellent series of interesting lectures for the regular monthly meetings.

At the October meeting Dr. Raymond Kienholz, who spent the last two summers with the U. S. Forest Service studying natural reforestation of the Douglas Fir, gave a very interesting illustrated lecture on logging operations and forest conditions in general in the Northwest. A month later Mr. W. G. Solheim discussed the problem of sex determination in plants. At the autumn initiation of new members to be held soon Dr. W. L. Burlison, Head of the Department of Agronomy, is scheduled to give an illustrated lecture on equipment and methods employed at the Boyce Thompson Institute for plant research, which he visited recently.

Mr. F. L. Winter, Instructor in Plant Breeding, has resigned his position for the second semester 1926-27 to pursue graduate work at Cornell University, Ithaca, N. Y.

Kappa Chapter

Kappa chapter under the leadership of Mr. David Pankratz, instructor in Anatomy, has had several well attended and interesting meetings this fall. We have found five-thirty o'clock in the afternoon a good time to meet. The various departments represented in the society alternate in serving a light supper to the members. Active interest in scientific problems has been maintained throughout the year. A number of excellent papers which have been a source of inspiration and help to the members have been

presented at the bi-monthly meetings of the society. Plenty of time has been given to discussion.

"All work and no play makes Jack a dull boy", and Phi Sigmas do not think that it applies to Jack alone, therefore, we mixed the two and had a banquet May the fifth. Dr. A. J. Mix of the Botany Department was master of ceremonies and under his directions an extremely novel and amusing program was given.

Dr. H. B. Latimer of the Anatomy Department (formerly of the University of Nebraska) has affiliated with this chapter and has proven himself to be a lively member. He has promised to give us a talk on the Pearl Industry at our next meeting.

During the year, Dr. Raymond H. Wheeler of the Psychology Department gave one of the most interesting talks of the year on "The Relation of Psychology to Phycology". Dr. Wheeler told of some very fascinating and significant experiments, and questions by the members brought out instructive information on the subject. At another meeting Dr. C. F. Nelson of the Biochemistry Department presented a very unusual but extremely interesting paper on "The Origin of Life". "Life at Newfoundland" was ably given by Dr. A. A. Schaeffer, who has recently returned from a trip to that region.

Many of our members are engaged in active research. Mr. Joe Geering of the Anatomy Department has been investigating the functional regions in the spinal cord. His work is quite significant and will throw light on a most important field of work.

Please do not think all of our members belong to the Anatomy Department because we really have representatives from all the Departments in Biological Sciences. The Bacteriology Department has contributed the largest number of members. We were to have had our initiation of new members at our last meeting; however, as school was dismissed because of Armistice Day, initiation was postponed until the next regular meeting of the society. At the present

time we have eighteen active members.

—Irene Cutter.

Delta Chapter

At the University of Maine we have just held our fall initiation and banquet. Wednesday, November 17, four faculty members,—Miss Schneider, Miss Buchan, Mr. Ayers, and Mr. Hyland; eight students,—Miss Farrington, Mr. Adams, Mr. Bell, Mr. Goodspeed, Mr. Johnson, Mr. Kelso, Mr. Waldo, and Mr. Waldron were the initiates. Dr. W. J. Morse, Director of the Maine Experiment Station, was elected honorary member for this year. Our speaker at the banquet was Dr. Jordan, formerly Director of the Maine Experiment Station, who is now Director of the New York Agricultural Experiment Station.

At the regular meetings of Delta chapter, the program committee plans to have one or two speakers on subjects of interest to the group. At the second meeting of this year, October 26, Dr. Whiting told us about Woods Hole and the people there. Much interest was exhibited in his snapshots of some of the workers at this laboratory. At the same meeting Dr. Eyster spoke on the World Congress of Plant Sciences at Cornell. Needless to say, this was listened to attentively. At another meeting, Prof. Merchant spoke to us on statistics, a subject which is very helpful to biologists when the principles are applied.

On December 7, Delta Chapter is planning a Christmas social meeting. Elaborate preparations are being made to include as much of the Christmas setting as possible. We hope that a large number will come to enjoy the tree, the supper, and the Christmas surprises.

Delta Chapter has a new president this fall. Wilhemina Dunning, elected president last spring at the annual election, has decided to study in Columbia University this year. We congratulate her but we are sorry for the local chapter of Maine. Ralph Swift, the former vice-president of the chapter, was elected to fill the presidential chair,

and Thomas Dickson became vice-president.

In scholarship Delta chapter stands highest of the honorary societies at the University of Maine. We are trying hard to keep our standard there.

—Annette Matthews.

Upsilon Chapter

The club of Phi Epsilon, local honorary biological society, founded in 1921, has recently been replaced by the Upsilon Chapter, of Phi Sigma on May 7, 1926. Dr. H. J. Van Cleave, secretary of the American Microscopical Society, Urbana, Illinois installed the chapter with 37 charter members, of which 28 were active members. The installation was very beautifully and earnestly conducted, after which every one retired to a gorgeous banquet held in the new dining-room of Ogden Hall. Dr. Van Cleave gave us a very interesting talk on some of his own research, which was extremely interesting and appreciated by every one.

Now that we are more closely connected with the great scientific research societies, we have changed the nature of our program. Meetings are held every two weeks on Thursday evening. We have planned for active members to give talks of their problems on one meeting of each month, and the other meetings are given to outside speakers and faculty members.

On our last meeting Dr. da Cruz gave us a very interesting talk on the "Native Flora and Fauna of Southeast Africa." For January 14, Dr. Raymond C. Osborn, Head of Department of Zoology at Ohio State University, is scheduled, and we expect to have other good outside speakers.

Research among the advanced students and faculty in the different departments of Biological Science at Miami University has for some years been carrying on research work, but since the time of our installation as Upsilon chapter of Phi Sigma last May, research among the students has been stimulated to a greater extent. More

will be said of the research our members are actively engaged in, at a later date.

—Everett Miller.

Lambda Chapter

Lambda Chapter is beginning a new year with eighteen active members, representing the departments of Botany, Biology, and Forestry. Regular meetings are held the first Tuesday of each school month. Until this year, the meetings have been largely devoted to business, but the members of the program committee plan to add special musical numbers and lectures whenever possible. This committee favors a student program, consisting of reports upon research problems, with occasional talks by the faculty members of the organization.

Several active members are engaged in research problems at present, but so far this fall there have been no definite conclusions to report. At the first regular meeting on October 5, Dr. M. J. Elrod of the Biology Department, gave an interesting account of Grinnell Glacier, of Glacier National Park. At the second meeting, Dr. Joseph E. Kirkwood of the Botany Department gave a report of his trip through the upper half of the South Fork of the Flathead River, via the head of the Sun River. On this trip the first study was made of the flora of that region. Dr. Kirkwood was accompanied by Professor J. H. Ramskill of the Forestry Department.

During the last year we have secured three new faculty members, all of whom are members of Phi Sigma. Miss Leona Baumgartner came from the University of Kansas to accept the position of Instructor of Bacteriology. She is a lively addition to the faculty.

Dr. C. A. Waters, who came from Beta Chapter this fall, is now the Assistant Professor of Botany.

Dr. R. T. Young, Associate Professor of Biology, joined the faculty at Christmas time last year. He formerly was faculty advisor of Omicron Chapter of North Dakota. Both Dr. Young and Dr. Waters

take a deep interest in the organization, and we feel that we are indeed fortunate in having them with us.

From the interest shown at the regular meetings, and the prospective members who will be voted on soon, this year promises to be an interesting and progressive one for Lambda Chapter.

—Clarence Spaulding.

Phi Chapter

In November, 1925, the honorary zoological fraternity, Pi Gamma, of the University of New Hampshire, petitioned Phi Sigma for affiliation. Pi Gamma was founded ten years before for the purpose of "furthering Biological thought through extensive research." Members of Delta Chapter of the University of Maine had been interested in Pi Gamma for several years, some of Pi Gamma's alumni being members there. In the spring of 1925, Delta Chapter invited Pi Gamma to send a representative there to inspect the organization. The delegate reported that Phi Sigma stood for the same principles that Pi Gamma had valiantly upheld and that affiliation would mean an association with other chapters, vitally interested in furthering biological research. Realizing the privileges pertaining to this affiliation, Pi Gamma petitioned Phi Sigma for affiliation which was granted April 13, 1926.

Dr. Carl L. Wilson, Department of Biology, Dartmouth College installed Phi Chapter of Phi Sigma on the evening of May the twenty-first, 1926. Meeting was called to order in the Common's Club Rooms by Donald G. Barton, Retiring President of Pi Gamma, who turned the meeting over to Dr. Wilson. Following the simple, impressive installation ceremony, a letter was read from Dr. C. I. Reed, National Secretary of Phi Sigma. The meeting then adjourned to the President's dining room where a banquet was served. The banquet was enlivened by numerous songs adopted from those of Pi Gamma fraternity. Following the banquet, Toastmaster, Milton F. Crowell introduced the following speakers with their

subjects: Pi Gamma by Donald G. Barton, President; Our Alumni by Laura F. Jacques; Biology on the Campus by Dr. Nathan L. Griffin; Our Brothers and Sisters in Phi Sigma by Dorothy T. Smith; Phi Sigma by Dr. Carl L. Wilson, Installing Officer, Department of Biology, Dartmouth College.

At the conclusion of the program, the members adjourned to the home of Professor and Mrs. Jackson for a reunion.

The first meeting of Phi Chapter of Phi Sigma was held May 25, when the following officers were installed for the coming year: President, Dorothy T. Smith; Vice-president, Carolyn E. Dodge; Secretary, Hazel W. Eaton; Corresponding Secretary, Pauline F. Stewart; Treasurer, Nathalie Moulton; Marshall, McLean J. Gill; Sentinel, Burdette W. Lyman. Plans were made for a trip to Great Bay to collect sea fauna and for a reunion and clam bake there.

Phi Kappa Phi held a scholarship night on the evening of May the twenty-seventh, to which all the honorary societies on campus were invited and a representative from each organization presented the aims and purposes of the society. Phi Sigma was represented by its President. Besides the new Phi Kappa Phi initiates, the honorary societies, eighty Freshmen were invited who had shown by their scholastic achievement to be especially interested in scholarship.

Phi Chapter of Phi Sigma takes this opportunity to express its appreciation of the interest and courtesy shown by the sister chapters.

—Dorothy T. Smith.

Iota Chapter

Iota has started out the year with thirty active members, twenty-four faculty, and two alumni. So far we have had two meetings. The October meeting, the first one after the summer, was held at the Medical School. The program was reminiscent of the summer vacation. Oliver McCoy, who had held the Phi Sigma scholarship this year, told of his summer at Woods Hole, and Dr. Margaret Upton, who had been

travelling abroad, described her visits to some of the old world scientific shrines.

In November we met at the Missouri Botanical Gardens. The fall election of new members which was held at this meeting resulted in the addition of seventeen new active and three new faculty members. The program of the evening was most interesting, as we were still drawing for talks upon our members who had recently returned from abroad. The first talk was by Frank Schmitt, who had demonstrated microdissection of the Bowman's capsule of Necturus and Cryptobranchus at the International Physiologists' meetings in Stockholm this summer. The second was a description of Oxford life by Dr. Mildred Trotter, who had spent the last year there on a National Research fellowship.

Plans are now being made for the initiation banquet which is to be held December 4, at the Forest Park Hotel.

—Charlotte Dawley.

Nu Chapter

With the opening of the 1926-27 session, Nu chapter formulated her plans for the ensuing year. At the opening meeting seven new sincere students of Biology were initiated. Plans for the coming year were outlined, meetings to be held every two weeks.

At the second meeting a paper was read by Mr. F. B. Cooper on *Evidences of Evolution* which excited much after discussion.

We have already outlined in detail our course of progress for at least the first semester. The program consists of the following papers to be read and discussed: Mortality and Morbidity Statistics of Cancer, The Descent of Man, Endocrine Glands, What Darwinism Means, Dinasauroic Extinction, Interesting Variations, Life History of Ants, Diseases of Pigeons, Changing Span of Life, and Animal Parasitism.

True to the ideals of Phi Sigma, some of our members have undertaken special research work. Mr.

Lachman has been experimenting, at different times in the past two years, on the canker of pigeons. Mr. Stout spent the Summer at the University of Chicago doing special work in comparative anatomy. Mr. Dieter also pursued graduate courses at the same institution in neurology and gross anatomy.

At our annual banquet to be held in December, Nu chapter expects to entertain some outstanding speaker in the field of biology.

At our last meeting last spring, Phi Sigma sponsored an open, illustrated lecture given by Dr. Santens, taxidermist of the Carnegie Museum of Pittsburgh, Pa.

Dr. G. W. Martin, and Professor C. D. Dieter are again acting as chapter advisors.

—Franklin B. Cooper.

Zeta Chapter

Loss of Honorary Members Felt by Chapter

The leaving of Drs. A. S. Pearse, Professor of Zoology, and E. J. Kraus, Professor of Botany, has created a gap in our Honorary Membership Roll which is irrepairable. Dr. Pearse has assumed his duties at Duke University, and we are very happy to have him on the faculty at an Institution where Phi Sigma is represented. Dr. Kraus leaves us at the close of this semester for the University of Chicago, where he will have charge of Applied Botany.

Zeta Chapter at this time wishes to express its sincere appreciation for the services rendered the Society by Drs. Pearse and Kraus. Their interest in both the membership and the activities of the Chapter has aided materially in the furtherance of Phi Sigma and its purposes on the campus. We regret that men entering the Society in the future will miss the stimulation of the inspirational talks of Dr. Kraus, and the interesting discussions and good stories that are presented invariably by Dr. Pearse.

During the school year to date the members of the Society and their guests have been given the

opportunity to hear three decidedly attractive and interesting lectures.

Dr. John Montieih, an alumnus member of Zeta Chapter, spoke on his research work in connection with the control of two prevalent diseases (Dollar Spot and Brown Patch) which attack golf greens. Slides accompanying his talk indicated quite clearly how these disorders account for poor golf scores; and also illustrated the success obtained by the use of both organic and inorganic mercuric compounds as means of control. The meeting in itself was somewhat of an ovation being the first in the school year and held in conjunction with Gamma Alpha, representative speakers being selected from each organization.

Dr. R. A. Brink of the Department of Genetics, at a subsequent meeting spoke on his studies and observations while abroad during the past year. Apparently in Europe considerable emphasis is placed upon plant breeding. Not only is work of this nature carried on at the institutions of higher learning, but also individuals operating large areas of farm land provide both men and equipment for the consideration of plant breeding on their own properties.

To Dr. H. V. Gibson (Iota) goes the credit for obtaining Dr. E. R. Schmidt, Chief Surgeon at the University Hospital, for a talk of somewhat different character than ordinarily presented to the Society. Dr. Schmidt stressed the importance of post-graduate study for men with degrees in medicine, drawing from his own experiences while studying in both Germany and Sweden. He presented a very interesting series of slides concerned with college life in Sweden. Members of Gamma Alpha, Sigma Delta Epsilon, Sigma Sigma and guests were entertained by the Society.

Dr. H. L. Russell, Dean of the College of Agriculture, Dr. L. R. Jones, Chairman of the Department of Plant Pathology, and Dr. A. A. Granovsky of the Department of Economic Entomology, have consented to appear on our program later in the semester. During the second semester of the year Zeta Chapter expects to sponsor one or

more public lectures and other speakers will be selected by popular choice.

—Alfred Weed.

The Grist We Grind

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4. Goldsworthy, M. C. Attempts to cultivate the mosaic virus of tobacco. Phytopath. 16: No. 11 in press. (Mu)
5. Grinnell, J. Geography and evolution in the pocket gopher. Univ. Calif. Chron. July, 1926. (Mu)
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7. Hinshaw, H. C. Morphology and mitosis of *Trichomonas buccalis* Kofoid. Univ. Calif. Publ. Zool. 29: 159-174, 1926. (Mu)
8. Hoagland, D. R., Davis, A. R., and Hibbert, E. L. Influence of light, temperature, and other conditions on the ability of *Nitella* cells to concentrate halogens in the cell sap. Jour. Gen. Phys. 10: 121-146, 1926. (Mu)
9. Kock, T. C., and Reed, C. I. V Increase in uric acid in blood irradiated directly. Amer. Jour. Phys. 75: 351, 1926. (Alpha)
10. Plakidas, A. G. Strawberry "yellows", a degeneration disease of the strawberry. Phytopath. 16: 423-426, 1926. (Mu)
11. Reed, C. I., and Tweedy, W. R. VII Blood calcium in direct ir-

radiation of blood. Amer. Jour. Phys. 76: 54, 1926. (Alpha)

12. Reed, C. I. Development of knowledge of radiant energy as applied to medical uses. Radiology 7: 292, 1926. (Alpha)
13. Smith, L. M., and Davis, A. C. Notes on the genus *Stenopelmatus* with description of a new species (Orthoptera). Pan-Pac. Ent. 2: 174-181, 1926. (Mu)
14. Talk, I. S., and Reed, C. I. VI Alteration in cell electrophoretic potential produced by direct irradiation of blood in vivo. Amer. Jour. Phys. 75: 616, 1926. (Alpha)
15. Van Dyke, E. C. Certain peculiarities of the Coleopterous fauna of the Pacific Northwest. Ann. Ent. Soc. of Amer. 19: 703-707, 1926. (Mu)

Our Coming Convention

It is with high hopes that I look forward to our third convention meeting at Philadelphia. Our society has surely made advances in the right direction. Our aim should be that every member of the organization should be doing research work of some kind, each in his own chosen field. The old saying is literally true that if we wish to do something badly enough we will in some way find the opportunity to carry our plans into effect.

Our first meeting in Washington, D. C. was practically a get-together occasion where we really made Phi Sigma a unified entity, for previously each chapter was an individual organization with, in reality, almost no connection with any of the other chapters. There we clasped hands with the flesh and blood members from the length and breadth of our land, made over our constitution, and made plans not only to hold a convention the two succeeding years but also thereafter to meet in convention every two years in connection with the A. A. A. S., best of all to present a program of research problems carried on by our members, as largely as possible by those of undergraduate rank. It is the desire of the National Council that many of our members of our

various chapters shall be ready for such programs from year to year as our body of delegates and members meet with the A. A. A. S. The finest service Phi Sigma can render is to bring as many of its members together at our convention where the discussion of topics of mutual interest can be indulged in in the most friendly and critical manner whereby all will be lifted to a higher plane of thinking and acting.

This mutual interest in each other's life and activities will be of inestimable value to all who participate therein. The National Council is immensely interested in bringing all possible pressure upon her members to cooperate loyally and heartily in making our organization the best of its kind in existence. I feel that our aim, "The stimulation of undergraduates to engage in personal research and investigation", is unique among organizations of a similar nature.

—I. E. C.

Prof. Reed Advises Clothiers on Ultra-Violet Light

An article in the clothier's daily paper, *Women's Wear*, with the heading, "Study of Fabrics Penetrable by Sun's Invisible Rays Urged as Health Measure" is accredited to Professor C. I. Reed. This popular article is the outgrowth of extensive studies which have been made by Doctor Reed, while at Chicago University, upon the physiological effects of light on arterial blood of the dog.

He pointed out to the clothiers the value of these invisible rays of light as a health tonic of great importance. Modern business life, clothes and conventions make our wearing apparel unhygienic. Professor Reed also calls attention to the need of greater scientific research and investigation to ascer-

tain the suitability of various fabrics to the absorption of these stimulating sun rays.

Recently Doctor Reed was called to Chicago to read a paper on, "Light" before the American College of Physical Therapy. He is making numerous fundamental physiological studies on the animal side and his work is being looked to by the medical profession as a pioneer contribution to our knowledge of the chemical and physiological effects and use of the Actinic rays.

Phi Sigma Ways

"The way of the transgressor is hard", says the Bible. Certainly no Phi Sigma chapter can afford to overlook this opportunity to learn from one another.

1. In Eta Chapter, they are conducting their meetings by reading one or more papers upon student research problems, but with the added feature that these readings are accompanied by a demonstration in the laboratory, whenever possible.

2. Sigma Chapter is favorably situated in Florida, "where there is no winter". Consequently they have developed a field project for their society on a bit of virgin land owned by the Biology Department. The club is making it their particular aim to study systematically the taxonomic groups of the flora and fauna found there, to classify the species, and to study the ecology in reference to soil and climate factors.

3. Delta can be known for their social and hiking spirit. These people, way up there in Maine, are not discouraged by their wintery blasts, they virtually defy the weather to

interfere with their hikes and their indoor social programs.

4. Zeta and Pi Chapters carry out seasonal programs which are frequently held with other honorary and scientific societies and fraternities on their campuses. This tends to stimulate each rival organization to do its best work; a policy decidedly worth while.

5. Iota Chapter gives yearly fellowships, to the likeliest undergraduate, to partially support his summer tuition at Woods Hole Biological Station. Would that other chapters would adopt such a means for serving their Alma Maters, and biology.

Report of the National Treasurer

January 1, 1926 to June 1, 1926

GENERAL FUND

Receipts	\$546.04
Expenditures	290.51
Balance on hand	255.53

CONVENTION FUND

Receipts	\$501.00
Expenditures	245.44
Balance on hand	255.56

BIOLOGIST FUND

Receipts	\$922.62
Expenditures	346.90
Balance on hand	575.72

KEY FUND

Receipts	\$955.01
Expenditures	793.18
Balance on hand	161.83

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